



## INTRODUCTION

Telehealth, the provision of health care at a distance through technology, can expand access to high-quality care by increasing availability, reducing costs, and offering a patient-centered approach.<sup>1,2,3,4</sup> Many health care services, such as radiology, mental health care, and emergency medicine, have expanded their reach through telehealth.<sup>5</sup>

For many people, abortion is inaccessible due to a number of factors, including a lack of providers, the need to travel long distances to reach care, inconvenient clinic hours or the inability to make appointments, the costs associated with both care and accessing care, and the satisfaction with services offered. Moreover, regulations—which vary greatly across states and countries—exacerbate these barriers by targeting when, where, and how abortion can be provided.<sup>3,6-16</sup> In an effort to address differing restrictions, expand access to abortion care, and better meet provider and patient needs, a variety of telehealth models for administering medication abortion have been developed and used.<sup>17</sup>

In 2011, Ibis launched a program of work to evaluate the use and safety of telehealth for medication abortion services. To date, this work has aimed to better understand the use of this emerging technology and its potential to transform abortion care. This brief includes an overview of the different telehealth provision models currently in place, examples of their use, and how these models have expanded access to abortion.

## MEDICATION ABORTION PROVISION MODELS

For an in-person medication abortion visit, patients visit a clinic where they meet with clinic staff, receive counseling about their pregnancy and abortion options, and may receive diagnostic testing, such as an ultrasound. All patients provide informed consent.

Patients then meet in person with a health care provider who reviews their medical history and assesses their eligibility for medication abortion. If an ultrasound has been performed, the provider reviews the image when determining eligibility. If the patient is eligible for medication abortion, the provider will answer questions and give the patient information about how to take the medication and when to seek follow-up care. In many parts of the world, including most US states, a physician must provide the medication abortion;<sup>18</sup> however, the World Health Organization recommends that in addition to physicians, a range of providers, including nurses, midwives, and associate clinicians also manage medication abortion care in the first trimester.<sup>19</sup>

### *In-clinic telehealth model*

The in-clinic telehealth model for medication abortion provision is similar to the in-person model in many ways. Patients visit a clinic where they meet with clinic staff to receive counseling about their pregnancy and abortion options, and possibly receive diagnostic testing, such as an ultrasound. All patients provide informed consent. Unlike the in-person model, communication technology, such as video conference, is used to connect the patient with a remote health care provider who reviews the patient's medical history and assesses their eligibility for medication abortion. If an ultrasound was performed, the provider reviews the ultrasound remotely when determining eligibility. If the patient is eligible for medication abortion, the provider will answer questions and give the patient information about how to take the medication and when to seek follow-up care. Variations of this model include patients receiving diagnostic tests at local clinics and then traveling to another clinic for their telehealth medication abortion visit, and/or speaking with the provider by telephone instead of video conference. Medication abortion provided via in-clinic telehealth has been shown to be safe and effective; severe complications are extremely rare, and only 1-5% of patients require an aspiration procedure to complete the abortion.<sup>20</sup>

### *Direct-to-patient telehealth model*

The direct-to-patient telehealth model for medication abortion provision allows eligible patients to access medications without an in-person visit at an abortion-providing facility. In this model, patients consult with a health care provider through either a website or teleconference.<sup>17</sup> The provider determines eligibility by asking a series of questions and may require the patient to send an ultrasound report and/or other medical test results for review. Once the provider has determined the patient's eligibility, the medications are sent directly to the patient by mail, or the patient is given a prescription to be filled at a local pharmacy, where possible. Direct-to-patient services have also been found to be effective; in small studies of women at less than nine weeks gestation, 5.3-19.3% of patients had a follow-up aspiration procedure, some of which were deemed unnecessary.<sup>21-23</sup>

## TELEHEALTH FOR MEDICATION ABORTION MODELS IN PRACTICE

The in-clinic telehealth model is the most frequently used telehealth model for providing medication abortion in the United States. It complies with the US Food and Drug Administration (FDA) requirement that mifepristone—one of the two medications commonly used for medication abortion—be “dispensed in clinics, medical offices, or hospitals by or under the supervision of a certified healthcare provider.”<sup>24</sup> Alaska was one of the first US states to implement an in-clinic telehealth model. Through the use of videoconference, physicians can monitor the administration of mifepristone in a licensed facility—a model that meets Alaska's medication abortion requirement that abortion must be performed by a licensed physician within a facility that is licensed for performing abortions.<sup>25, 26</sup>

The direct-to-patient model is often utilized in contexts where abortion is highly restricted and/or where abortion providers are not available or accessible. For example, in Brazil, abortion is illegal except in cases of rape, life endangerment, or anencephaly.<sup>27, 28</sup> Some groups, including Women on Web, provide people with an online consultation via questionnaire to determine

their eligibility for medication abortion. Responses to the online consultation are reviewed by a provider after submission to the website. Providers can communicate with the individual to obtain more information as necessary. If the patient is eligible, the medication is mailed to them directly.<sup>21-23, 29</sup>

In other locations, such as some Australian states, where both medication abortion and the telehealth provision of medication abortion are legal,<sup>30</sup> some clinics have adopted a model that combines elements of in-clinic and direct-to-patient telehealth models. In this combined model, patients receive diagnostic tests and an ultrasound from a general practitioner or other medical provider. Results are then sent to a clinic providing abortion care and patients receive counseling at their homes via phone or videoconference to determine their eligibility for medication abortion. If the patient is eligible, medications are mailed to the patient's home or sent to a pharmacy for pick up. Follow-up care is provided via telephone or videoconference, as well as by the patient's general practitioner or other provider to confirm the success of the procedure.<sup>17</sup>

## HOW DO IN-PERSON TELEHEALTH FOR MEDICATION ABORTION AND DIRECT-TO-PATIENT SERVICES EXPAND ACCESS TO ABORTION?

We use five domains to define access to health care:

**1. Availability**, “the relationship of the volume and type of existing services (and resources) to the clients' volume and types of needs.”<sup>31</sup> Any addition of abortion providers or abortion-providing facilities increases availability of abortion care. Both in-clinic and direct-to-patient telehealth medication abortion models increase availability.

**2. Accessibility**, “the relationship between the location of supply and location of the clients.”<sup>31</sup> In-clinic telehealth provision of medication abortion may allow patients to travel shorter distances to receive care. As a result, studies have shown that this model may also allow patients to have an abortion earlier in pregnancy.<sup>26</sup>

In a direct-to-patient telehealth model, patients do not travel to an abortion-providing facility. For those living in areas with restrictive abortion policies, increases in accessibility may be vital;<sup>21</sup> in a study among women in Northern Ireland who sought direct-to-patient services, many mentioned that without that option, they would have been unable to access safe abortion care.<sup>31</sup>

**3. Accommodation,** *“the relationship between the manner in which the supply resources are organized to accept clients...and the clients’ ability to accommodate to these factors and [their] perception of their appropriateness.”*<sup>31</sup> In one evaluation of in-clinic telehealth models, providers reported liking the telehealth model because it provided a more patient-centered approach to care.<sup>1,26</sup> Similarly, patients who utilize a direct-to-patient model may experience increased anonymity and avoid potential harassment from protestors at abortion clinics.<sup>17</sup>

Despite increasing accommodation, there are some ways in which telehealth models may be less accommodating than an in-person model. For example, some in-clinic telehealth users have reported experiencing minor technical issues, including having to adjust the volume or video.<sup>26</sup> Additionally, in many countries where direct-to-patient models operate, abortion is illegal, which could cause potential legal problems for organizations that mail medication abortion medications or for patients who are accessing the medications without a prescription.<sup>21</sup>

**4. Affordability,** *“the relationship of prices and services and providers’ insurance or deposit requirements to the clients’ income, ability to pay, and existing health insurance.”*<sup>31</sup> For both in-clinic and direct-to-patient telehealth models, patients may have decreased travel time and expenses compared to in-person care delivery. This decreased travel time may also lessen travel-related costs, including transportation, child care, and lost wages.

Although there is the potential for increased affordability for patients, there may be an up-front cost to clinics associated with implementing telehealth technology.<sup>32</sup> In addition, the way in which insurers reimburse services provided via telehealth can vary, with some insurers opting not to cover telehealth services.<sup>33</sup>

**5. Acceptability,** *“the relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients.”*<sup>31</sup> Research indicates that patients and providers have similar, and in some cases higher, levels of satisfaction with in-clinic telehealth models compared with an in-person medication abortion model, one measure of acceptability of the service.<sup>3,4</sup> Many patients reported feeling indifferent about speaking to a physician using teleconference or in person, and some patients preferred teleconference over the in-person model.<sup>34</sup> Additionally, evaluations of direct-to-patient telehealth for medication abortion services have found high levels of satisfaction among clients.<sup>31,35</sup>

## FUTURE DIRECTIONS



Although the current models for telehealth provision of medication abortion can increase access, some communities still have poor access to abortion care. For example, in 2014, 39% of women of reproductive age in the United States lived in counties with no abortion provider.<sup>38</sup> Furthermore, there are still many states and countries where telehealth provision of medication abortion has not been or cannot be implemented; in 17 US states, there are requirements that a provider be physically present during the provision of medication abortion, effectively banning the use of telehealth for the service.<sup>39</sup> As telehealth evolves, new models could be used to increase access to high-quality care. One community that could benefit from the telehealth provision of medication abortion is the US military. Telehealth is widely used and satisfactory in the military, and access to abortion services is limited.<sup>40</sup> Consequently, telehealth provision of medication abortion could be implemented within the military, for the limited circumstances when abortion is permitted, in order to reduce the barriers that military service members experience when trying to access abortion care.<sup>40</sup>

Additionally, telehealth for medication abortion programs that have been used in other parts of the world are being piloted in the United States. For example, Gynuity Health Projects has received approval from the US FDA to pilot the use of a direct-to-patient telehealth services through their TelAbortion program. Through this pilot study, patients obtain pre-abortion tests at local facilities, and if eligible, are mailed medications and receive a video consultation with a clinician as well as follow-up tests at local facilities.<sup>41</sup> An evaluation found that the TelAbortion care delivery model was safe and effective.<sup>42</sup> In fall 2018, Women on Web expanded direct-to-patient telehealth for medication abortion services to the United States through a new organization, Aid Access; the US FDA has since launched an investigation into the legality of this service. Although novel in the United States, direct-to-patient models could increase access to abortion care for a greater percentage of the population, particularly those living in communities with limited access to abortion providers.

Beyond using telehealth to connect patients to a provider, technology has also been used to provide information to those seeking or using medication abortion. In Indonesia, abortion is highly restricted and stigmatized, creating many barriers to care. Like other safe abortion hotlines and accompaniment models worldwide, the Samsara safe abortion hotline in Indonesia provides people seeking to self-manage an abortion with information on where to get reliable medications, the proper dosing regimens, what to expect, how to confirm that the process is complete, and what to do if they need to seek care. Ibis partnered with Samsara to develop a secure smartphone application (app) to serve as an additional resource for people seeking information on self-managing their abortion with medication. The interactive app contains information about healthy relationships, contraception, and medication abortion. Ibis and Samsara then conducted a full-scale randomized control trial of the app's impact on hotline caller's feelings of support and preparedness during their medication abortion process compared to standard of care from the hotline. The

majority of both those who did and did not have access to the app reported that they were very or somewhat confident that they were taking their pills at the right time, very or somewhat prepared to take pills on their own, very or somewhat prepared for the bleeding and pain that they experienced, and very or somewhat supported during their abortion process. Almost all participants with access to the app said that it was easy to use and that they would recommend it to a friend.<sup>43</sup> Harnessing technology such as this app to provide additional information to patients has the potential to increase access to abortion and reproductive health care for people in settings where abortion is highly restricted, as well as in locations where it is more widely legal.

## CONCLUSION

Telehealth provision of medication abortion has the potential to increase access to high-quality abortion care for populations worldwide. Although many states' and countries' laws restrict elements of this practice or the availability of medication abortion, a variety of innovative models have evolved to expand access to abortion services. Furthermore, some telehealth models have developed in response to patients' desires for increased choice of care, accessibility, and affordability of services. As telehealth is a rapidly evolving field, it is likely that more models will develop to make medication abortion increasingly available for patients who seek this service. As new models are implemented, ongoing research is vital to ensure safe and effective care, and increased access to services for patients worldwide.

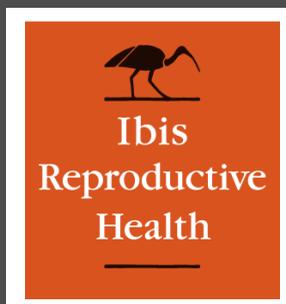
## REFERENCES



1. Grossman D, Grindlay K, Buchacker T, Lane K, Blanchard K. Effectiveness and acceptability of medical abortion provided through telemedicine. *Obstetrics and Gynecology*. 2011;118(2 Pt 1):296-303.
2. Charles BL. Telemedicine can lower costs and improve access. *Healthcare Financial Management*. 2000 ;54(4):66-69.
3. Grossman DA, Grindlay K, Buchacker T, Potter JE, Schmettmann CP. Changes in service delivery patterns after introduction of telemedicine provision of medical abortion in Iowa. *American Journal of Public Health*. 2013; 103(1):73-78.
4. Sahdev H. Can I Skype my doctor? Limited Medicare coverage hinders telemedicine's potential to improve health care access. *Boston College Law Review*. 2016; 57(5).
5. Field MJ, ed. *Telemedicine: A guide to assessing telecommunications in health care*. Washington (DC)1996.
6. Jones RK, Jerman J. Time to appointment and delays in accessing care among US abortion patients. *The Guttmacher Institute*; 2016.
7. Gerdt C, Fuentes L, Grossman D, White K, Keefe-Oates B, Baum S, Hopkins K, Stolp CW, Potter JE. Impact of clinic closures on women obtaining abortion services after implementation of a restrictive law in Texas. *American Journal of Public Health*. 2016; 106(5):857-864.
8. Grossman D, Baum S, Fuentes L, Hopkins Km, Stevenson A, Potter JE. Change in abortion services after implementation of a restrictive law in Texas. *Contraception*. 2014; 90(5):496-501.
9. Karasek D, Roberts SC, Weitz TA. Abortion patients' experience and perceptions of waiting periods: Survey evidence before Arizona's two-visit 24-hour mandatory waiting period law. *Women's Health Issues*. 2016; 26(1):60-66.
10. Fuentes L, Lebenkoff S, White K, Gerdt Cm, Hopkins K, Potter JE, Grossman D. Women's experiences seeking abortion care shortly after the closure of clinics due to a restrictive law in Texas. *Contraception*. 2016; 93(4):292-297.
11. Jones RK, Upadhyay UD, Weitz TA. At what cost? Payment for abortion care by US women. *Women's Health Issues*. 2013; 23(3):e173-e178.
12. White K, Grossman D, Turan JM. Experiences accessing abortion care in Alabama among women traveling for services. *Women's Health Issues*. 2016; 26(3):298-304.
13. Upadhyay UD, Weitz TA, Jones RK, Barar RE, Foster DG. Denial of abortion because of provider gestational age limits in the United States. *American Journal of Public Health*. 2014; 104(9):1687-1694.
14. Roberts S, Fuentes L, Kriz R, Williams V, Upadhyay U. Implications for women of Louisiana's law requiring abortion providers to have hospital admitting privileges. *Contraception*. 2015; 91(5):368-372.
15. Jones RK, Jerman J. How far did US women travel for abortion services in 2008? *Journal of Women's Health*. 2013 ;22(8):706-713.
16. Roberts SC, Gould H, Kimport K, Weitz TA, Foster DG. Out-of-pocket costs and insurance coverage for abortion in the United States. *Women's Health Issues*. 2014; 24(2):e211-e218.
17. Raymond EG, Chong E, Hyland P. Increasing access to abortion with telemedicine. *JAMA Internal Medicine*. 2016; 176(5):585-586.
18. Berer M. Provision of abortion by mid-level providers: international policy, practice and perspectives. *Bulletin of the World Health Organization*. 2009; 87(1):58-63.
19. World Health Organization. Health worker role in providing safe abortion care and post abortion contraception. Geneva: World Health Organization; 2015. Available at: [http://apps.who.int/iris/bitstream/handle/10665/181041/9789241549264\\_eng.pdf;jsessionid=E3A1086759B0D3C0871E7AB45702C36C?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/181041/9789241549264_eng.pdf;jsessionid=E3A1086759B0D3C0871E7AB45702C36C?sequence=1). Accessed 30 April 2019.
20. Kohn JE, Snow JL, Simons HR, Seymour JW, Thompson TA, Grossman D. Medication abortion provided through telemedicine in four US states. *Obstetrics & Gynecology*. 2019;134(2):343-350.
21. Gomperts RJ, Jelinska K, Davies S, Gemzell-Danielsson K, Kleiverda G. Using telemedicine for termination of pregnancy with mifepristone and misoprostol in settings where there is no access to safe services. *BJOG*. 2008; 115(9):1171-1175.
22. Gomperts R, van der Vleuten K, Jelinska K, da Costa CV, Gemzell-Danielsson K, Kleiverda G. Provision of medical abortion using telemedicine in Brazil. *Contraception*. 2014;89(2):129-133.
23. Aiken ARA, Digol I, Trussell J, Gomperts R. Self reported outcomes and adverse events after medical abortion through online telemedicine: population based study in the Republic of Ireland and Northern Ireland. *BMJ*. 2017; 357;j2011.
24. US Food and Drug Administration. Mifeprix (mifepristone) information. 2018. <https://www.fda.gov/Drugs/DrugSafety/ucm111323.htm>.
25. State of Alaska. Statute 18.16.010. Abortions. <http://touchngo.com/LGLCNTR/AKSTATS/Statutes/Title18/Chapter16/Section010.htm>.

26. Grindlay K, Grossman D. Telemedicine provision of medical abortion in Alaska: Through the provider's lens. *J Telemed Telecare*. 2017; 23(7):680-685.
27. Center for Reproductive Rights. The world's abortion laws 2019. <http://www.worldabortionlaws.com/map/>.
28. Brazil: Supreme Court makes abortion legal in cases of anencephaly. 2012. Available at: <https://iwhc.org/2012/04/brazil-supreme-court-makes-abortion-legal-in-cases-of-anencephaly/> Accessed 30 April 2019.
29. Raymond EG, Grossman D, Wiebe E, Winikoff B. Reaching women where they are: Eliminating the initial in-person medical abortion visit. *Contraception*. 2015; 92(3):190-193.
30. Baird B. Decriminalization and women's access to abortion in Australia. *Health and Human Rights*. 2017; 19(1):197-208.
31. Penchansky R, Thomas JW. The concept of access: Definition and relationship to consumer satisfaction. *Medical Care*. 1981; 19(2):127-140.
32. Aiken A, Gomperts R, Trussell J. Experiences and characteristics of women seeking and completing at-home medical termination of pregnancy through online telemedicine in Ireland and Northern Ireland: a population-based analysis. *BJOG*. 2017; 124(8):1208-1215.
33. Kidholm K, Ekland AG, Jensen LK, Rasmussen J, Pedersen CD, Bowes A, Flottorp SA, Bech M. A model for assessment of telemedicine applications: MAST. *International Journal of Technological Assessment in Health Care*. 2012; 28(1):44-51.
34. Fix L, Grindlay K, Seymour JW, Burns B, Reiger ST, Grossman D. Telehealth leaders' attitudes toward telemedicine provision of medication abortion: A qualitative study. 2018. Available at: <https://ibisreproductivehealth.org/sites/default/files/files/publications/Telehealth%20leaders%27%20attitudes%20toward%20telemedicine%20provision%20of%20medication%20abortion%20A%20qualitative%20study.pdf>. Accessed 30 April 2019.
35. Grindlay K, Grossman D. Women and provider's experiences with medical abortion provided through telemedicine. *Womens Health Issues*. 2013; 23(2):120-121.
36. Hyland P, Raymond EG, Chong E. A direct-to-patient telemedicine abortion service in Australia: Retrospective analysis of the first 18 months. *Australian and New Zealand Journal of Obstetrics and Gynecology*. 2018;58(3)335-340.
37. Fiala C, Winikoff B, Helstrom L, Hellborg M, Gemzell-Danielsson K. Acceptability of home-use of misoprostol in medical abortion. *Contraception*. Nov 2004; 70(5):387-392.
38. Iyengar K, Paul M, Iyengar SD, Klingberg-Allvin M, Essén B, Bring J, Soni S, Gemzell-Danielsson K. Self-assessment of the outcome of early medication abortion versus clinic follow-up in India: a randomized, controlled, non-inferiority trial. *Lancet Global Health*. 2015; 3(9):537-545.
39. Jones RK, Jerman J. Abortion incidence and service availability in the United States, 2014. *Perspectives on Sexual Reproductive Health*. 2017;49(1):17-27.
40. Guttmacher Institute. Medication Abortion. 2019. Available at: <https://www.guttmacher.org/state-policy/explore/medication-abortion>. Accessed 30 April 2019.
41. Ibis Reproductive Health. Sexual and reproductive health of women in the US military issue brief 3: The potential of telemedicine to improve abortion access. 2017. Available at: [https://ibisreproductivehealth.org/sites/default/files/files/publications/Military%20Brief%203%202017\\_02-21.pdf](https://ibisreproductivehealth.org/sites/default/files/files/publications/Military%20Brief%203%202017_02-21.pdf). Accessed 30 April 2019.
42. Gynuity Health Projects. TelAbortion: The telemedicine abortion study. 2019. Available at: <http://telabortion.org/>. Accessed 30 April 2019.
43. Raymond E, Chong E, Winikoff B, et al. TelAbortion: Evaluation of a direct to patient telemedicine abortion service in the United States. *Contraception*. 2019; epub ahead of print
44. Jayaweera R, Hudaya I, Gerdtz C. Results from a randomized control trial evaluating the effect of a safe abortion smartphone application in Indonesia. *American Public Health Association Annual Meeting*. 2018.

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